



Jfw

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Yoshifumi IIDA et al.

Group Art Unit: 1753

Application No.: 09/987,413

Examiner: C. RoDee

Filed: November 14, 2001

Docket No.: 111115

For: TONER FOR DEVELOPING AN ELECTROSTATIC LATENT IMAGE,
DEVELOPER, DEVELOPER UNIT, AND METHOD FOR FORMING AN IMAGE

REQUEST FOR RECONSIDERATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the June 23, 2004 Office Action, reconsideration of the rejection is respectfully requested in light of the following remarks.

Claims 1-7, 9-15, 18 and 19 are pending herein. Claims 18 and 19 have been withdrawn by a Restriction Requirement.

I. Election/Restriction Requirement

The Office Action indicates that claims 18 and 19 remain withdrawn from further consideration and that the restriction remains final because the claims are allegedly drawn to a non-elected method, there allegedly being no allowable generic or linking claim.

However, the method claims of Group II (claims 18 and 19) include the limitations of the product claims of Group I. Thus, Applicants respectfully request that upon allowance of the product claims, the method claims be rejoined with the application and similarly allowed.

II. Claim Rejections Under 35 U.S.C. §103(a)

Claims 1, 2, 6, 7, 9-11 and 13 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 4,985,327 (hereinafter "Sakashita") in view of U.S. Patent No. 4,956,258 (hereinafter "Watanabe") and further in view of U.S. Patent No. 4,855,204 (hereinafter "Fujii");

claims 3 and 4 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Sakashita in view of Watanabe, further in view of Fujii, and still further in view of U.S. Patent No. 5,922,500 (hereinafter "Iida");

claims 5 and 12 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Sakashita in view of Watanabe, further in view of Fujii, and still further in view of *Handbook of Imaging Materials to Diamond* (hereinafter "Diamond"), pp. 179-181 and 222-224; and

claims 14 and 15 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Sakashita in view of Watanabe, further in view of Fujii, and still further in view of U.S. Patent No. 5,994,015 (hereinafter "Vail").

Each of the foregoing rejections is respectfully traversed. Specifically, Applicants submit that Sakashita, alone or in combination with the cited references, fails to teach or suggest the subject matter of independent claims 1 and 11, and that the presently claimed invention achieves results not expected from the combined teachings of the cited references so as to not have been obvious to one of ordinary skill in the art.

The Patent Office references the Abstract of Sakashita and alleges that Sakashita teaches a toner that has a size distribution of 17-60% by number of non-magnetic toner particles of 5 μm or smaller. The Patent Office further references table 5 and alleges that Sakashita discloses 17.2% of toner particles by number have a size of 4.00 μm or below.

The Patent Office further alleges that "the art" suggests that the number of particles in the size of 5.04 microns or less should be optimized and because Sakashita allegedly provides guidance of useful numbers of particles having a size of both 5.04 microns or less and 4 microns or less to obtain the results of the invention.

However, nowhere does Sakashita teach or suggest a ratio of white color toner particles having a particle diameter of no greater than 4 μm is 6 to 16% by number with respect to the total number of the white toner particles, as recited in each of claims 1 and 11.

Instead, Sakashita teaches the non-magnetic toner particles having a particle size of 5 microns or smaller are contained in an amount of 17-60% by number, preferably 25-50% by number, more preferably 30-50% by number. Sakashita further teaches that if the amount of non-magnetic toner particles is smaller than 17% by number, the toner particles effective in enhancing image quality is insufficient. See col. 6, lines 32-45 of Sakashita. Thus, Sakashita teaches away from a ratio of white color toner particles having a particle diameter of no greater than 4 μm that is 6 to 16% by number with respect to the total number of the white toner particles, as required by claims 1 and 11.

The Patent Office further acknowledged that Sakashita does not disclose a white colorant or that the colorant is present in an amount of 20 wt %. However, the Patent Office alleges that Watanabe teaches that white is a known pigment colorant for toners and is known as an alternative in the art and Fujii teaches specific features pertinent to the formulation of white toners.

Contrary to the assertion made by the Patent Office, Sakashita, Watanabe and Fujii, alone or in combination, would not have led one of ordinary skill in the art to the invention of claims 1 and 11. Specifically, nowhere do the cited references, alone or in combination, teach or suggest a white color toner particle containing at least a binder resin and a colorant, with the particle having a volume average particle diameter of no greater than 14 μm and a

concentration of the colorant being 20 to 50% by weight with respect to the binder resin, wherein a ratio of white color toner particles having a particle diameter of no greater than 4 μ m is 6 to 16% by number with respect to the total number of the white toner particles, as recited by each of claims 1 and 11.

Further, as evidenced by the previously submitted Rule 132 Declarations, when used in a single-layer constitution, the white color toner of the present invention and the cyan toner of Sakashita provide almost similar values in shielding property. However, **when used in a two-layer constitution in which the white color toner or the cyan toner is superimposed on the black toner layer, the white color toner of the present invention provides excellent results in shielding property (higher transmission density) as compared to the toner of Sakashita.**

Nothing in the references cited by the Patent Office (i.e., U.S. Patent No. 4,956,258 to Watanabe, U.S. Patent No. 4,855,204 to Fujii, *Handbook of Imaging Materials* to Diamond, pp. 179-181 and 222-224, or U.S. Patent No. 5,994,015 to Vail), alone or in combination, remedy the deficiencies of Sakashita discussed above. More specifically, nothing in the cited references, alone or in combination, teaches or suggests (1) a concentration of the colorant being 20 to 50% by weight with respect to the binder resin, wherein a ratio of white color toner particles having a particle diameter of no greater than 4 μ m is 6 to 16% by number with respect to the total number of the white toner particles, as recited by each of claims 1 and 11; or (2) the unexpected properties associated with the white toner of the present invention. One of ordinary skill in the art thus would not have found the invention obvious from the teachings of the references cited in the Office Action.

The Patent Office contends that the evidence of record (i.e., 132 Declarations previously submitted) are not persuasive to overcome the rejection allegedly because the deficiencies of the data relate to the tests used to show the results of the invention and such

deficiencies are not remedied by the claim amendments because the amendments do not relate to problems noted in the test procedure (i.e., unrelated to the number of white toner particles in the specified size range). The Patent Office further claims that the evidence is not persuasive because it is not commensurate in scope with the claims because only plural overlay images are presented, but the claims still recite only a single toner.

Contrary to the assertions made by the Patent Office, the unexpected results, as evidenced by the previously submitted 132 Declarations, are commensurate with the claimed toner. In particular, as discussed above, when used in a two-layer constitution in which the white color toner (present invention) or the cyan toner (Sakashita) is superimposed on the black toner layer, the white color toner of the present invention provides excellent results in shielding property (higher transmission density) as compared to the toner of Sakashita.

Whether or not a two-layer constitution is claimed does not detract or otherwise obviate the unexpected results of the claimed toner. The Patent Office appears to be confusing the toner with the unexpected results of the toner. The Patent Office contends that the results in the 132 Declarations are not claimed so therefore the 132 Declarations are not commensurate in scope with the claims. However, Applicants are not required to claim the unexpected results shown. Accordingly, the toner described in the 132 Declarations is commensurate in scope with the claims of the present invention. Further, claiming the unexpected results would confuse the toner itself with the unexpected property result of the toner.

For the foregoing reasons, Applicants submit that the rejection of claims 1 and 11 and depending claims 2-7, 9, 10, and 12-15 have been overcome. Reconsideration and withdrawal of the rejections is thus respectfully requested.